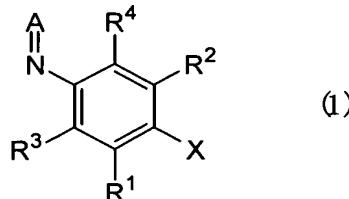
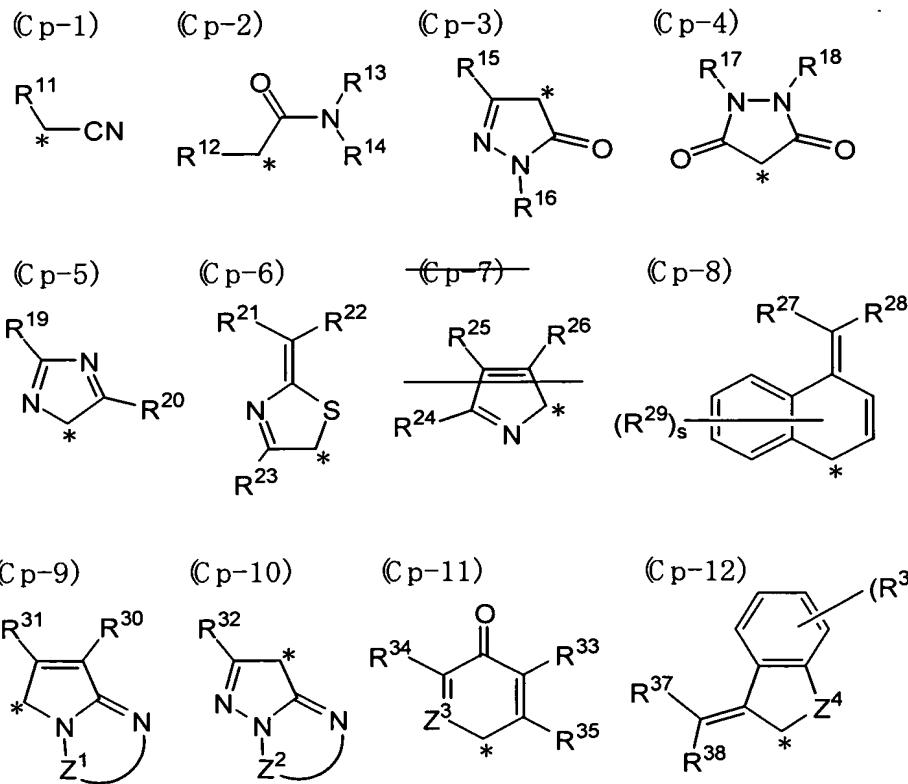


AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended): A hair dye composition comprising a dissociative direct dye represented by the following formula (1) or a salt thereof:



wherein, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> each independently represents a hydrogen atom or a substituent, X represents a hydroxyl group or -NHSO<sub>2</sub>R<sup>5</sup>, in which R<sup>5</sup> represents an alkyl, aryl or heterocyclic group, A represents a group represented by any one of the below-described formulas (Cp-1) through (Cp-12) formulae which group may have one or more substituents:



(in formulas (Cp-1) through (Cp-12), wherein \* is a position bonding to the nitrogen atom in formula (1),

in formula (Cp-1), R<sup>11</sup> represents a cyano, acyl, aryl or heterocyclic group, or -C(R<sup>101</sup>)=C(R<sup>102</sup>)-R<sup>103</sup>, in which R<sup>101</sup>, R<sup>102</sup> and R<sup>103</sup> each independently represents a hydrogen atom or a substituent with the proviso that at least one of R<sup>102</sup> and R<sup>103</sup> is an electron attractive group having a Hammett  $\sigma_p$  value of 0.1 or greater,

in formula (Cp-2), R<sup>12</sup> represents a cyano, alkoxycarbonyl, carbamoyl, aryl or heterocyclic group, and R<sup>13</sup> and R<sup>14</sup> each independently represents a hydrogen atom or an alkyl, aryl or heterocyclic group,

in formula (Cp-3), R<sup>15</sup> represents a hydrogen atom or an alkyl, aryl, heterocyclic, amino, alkylamino, arylamino, heterocyclic amino, alkoxy, acylamino, alkoxycarbonylamino, ureido, alkoxycarbonyl, carbamoyl or cyano group, and R<sup>16</sup> represents a hydrogen atom or an alkyl, aryl or heterocyclic group,

in formula (Cp-4), R<sup>17</sup> and R<sup>18</sup> each independently represents a hydrogen atom or an alkyl, aryl or heterocyclic group,

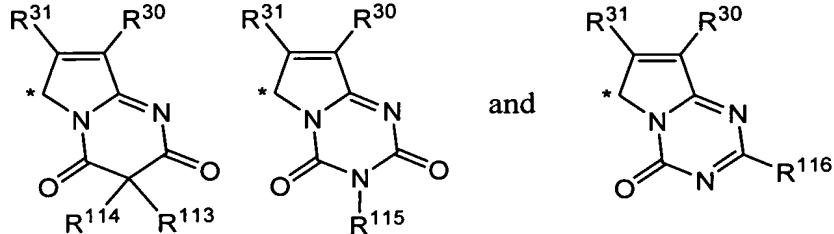
in formula (Cp-5), R<sup>19</sup> and R<sup>20</sup> each independently represents a hydrogen atom or an alkyl, aryl or heterocyclic group,

in formula (Cp-6), R<sup>21</sup> and R<sup>22</sup> each independently represents a cyano, carbamoyl, alkoxycarbonyl, alkylsulfonyl or arylsulfonyl group, and R<sup>23</sup> represents a hydrogen atom or an alkyl, aryl or heterocyclic group,

~~in formula (Cp-7), R<sup>24</sup>, R<sup>25</sup> and R<sup>26</sup> each independently represents a hydrogen atom or a substituent,~~

in formula (Cp-8), R<sup>27</sup> and R<sup>28</sup> each independently represents a cyano, carbamoyl, alkoxycarbonyl, alkylsulfonyl or arylsulfonyl group, R<sup>29</sup> represents a substituent, and s stands for an integer of from 0 to 6,

in formula (Cp-9), R<sup>30</sup> and R<sup>31</sup> each independently represents a hydrogen atom or a substituent, and Z<sup>1</sup> represents an atomic group necessary for the formation of a 6-membered ring together with N-C=N, resulting in a ring system selected from the group consisting of:



wherein R<sup>113</sup> and R<sup>114</sup> each independently represents a hydrogen atom or an alkyl group, R<sup>115</sup> represents a hydrogen atom or an alkyl group, and R<sup>116</sup> represents a hydrogen atom or an alkyl, aryl, alkoxy, aryloxy, amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, alkylsulfonylamino, arylsulfonylamino, alkylthio, or arylthio group,

in formula (Cp-10), R<sup>32</sup> represents a hydrogen atom or a substituent, and Z<sup>2</sup> represents an atomic group necessary for the formation of a 6-membered ring together with N-C=N,

in formula (Cp-11), R<sup>33</sup>, R<sup>34</sup> and R<sup>35</sup> each independently represents a hydrogen atom or a substituent, Z<sup>3</sup> represents a nitrogen atom or -C(R<sup>36</sup>)=, in which R<sup>36</sup> represents a hydrogen atom or a substituent, with the proviso that when Z<sup>3</sup> represents -C(R<sup>36</sup>)=, R<sup>34</sup> and R<sup>36</sup> may be coupled to form a 5-membered or 6-membered ring, and

in formula (Cp-12), R<sup>37</sup> and R<sup>38</sup> each independently represents a cyano, carbamoyl, alkoxycarbonyl, alkylsulfonyl or arylsulfonyl group, R<sup>39</sup> represents a hydrogen atom or a substituent, u stands for an integer of from 0 to 4 and Z<sup>4</sup> represents -SO<sub>2</sub>- or -SO-) or salt thereof.

Claim 2 (Original): A hair dye composition of Claim 1, wherein R<sup>1</sup> and R<sup>2</sup> of the dissociative direct dye (1) are each a hydrogen or halogen atom, or an alkyl, cyano, acylamino, ureido, alkoxy carbonylamino, aryloxycarbonylamino, sulfamoylamino, alkylsulfonylamino, arylsulfonylamino, alkoxy carbonyl, sulfamoyl or carbamoyl group which may be substituted.

Claim 3 (Original): A hair dye composition of Claim 1, wherein R<sup>3</sup> and R<sup>4</sup> of the dissociative direct dye (1) are each a hydrogen atom, a halogen atom, or an alkyl or acylamino group which may be substituted.

Claim 4 (Original): A hair dye composition of Claim 1, wherein X of the dissociative direct dye (1) is a hydroxyl group or -NHSO<sub>2</sub>R<sup>5</sup>, and R<sup>5</sup> is an alkyl group which may be substituted.

Claim 5 (Currently Amended): A hair dye composition of Claim 1, wherein A of the dissociative direct dye (1) is a group, which may have one or more substituents, selected from the ~~groups represented by~~ group consisting of:

formula (Cp-1) in which R<sup>11</sup> is a cyano group, acyl group, heterocyclic group or group -C(R<sup>101</sup>)=C(R<sup>102</sup>)-R<sup>103</sup>,

formula (Cp-2) in which R<sup>12</sup> is a cyano group, aryl group or heterocyclic group and R<sup>13</sup> and R<sup>14</sup> are each a hydrogen atom, alkyl group or aryl group, with the proviso that at least one of R<sup>13</sup> and R<sup>14</sup> represents a hydrogen atom,

formula (Cp-3) in which  $R^{15}$  is an alkyl, amino, alkylamino, arylamino, heterocyclic amino, alkoxy, acylamino, alkoxycarbonylamino, ureido, alkoxycarbonyl, carbamoyl or cyano group, and  $R^{16}$  is an aryl or heterocyclic group,

formula (Cp-4) in which  $R^{17}$  and  $R^{18}$  are each an alkyl or aryl group,

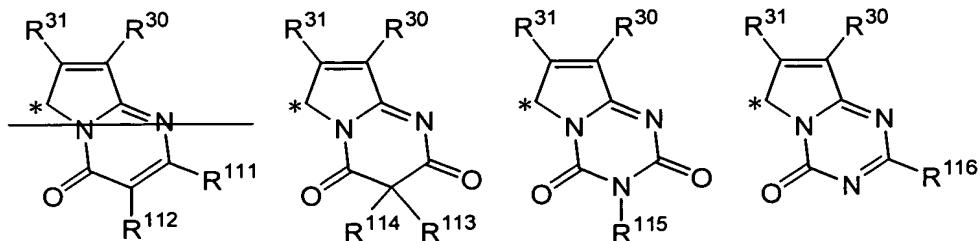
formula (Cp-5) in which  $R^{19}$  and  $R^{20}$  are each an aryl or heterocyclic group,

formula (Cp-6) in which  $R^{21}$  and  $R^{22}$  are each a cyano, carbamoyl or alkoxycarbonyl and  $R^{23}$  is a hydrogen atom or an alkyl group,

~~formula (Cp-7) in which  $R^{24}$  is a hydrogen atom or an aryl, acylamino, alkylsulfonylamino or arylsulfonylamino group and  $R^{25}$  and  $R^{26}$  are each a hydrogen atom or an aryl, alkoxy carbonyl, carbamoyl, alkylsulfonyl, arylsulfonyl or cyano group,~~

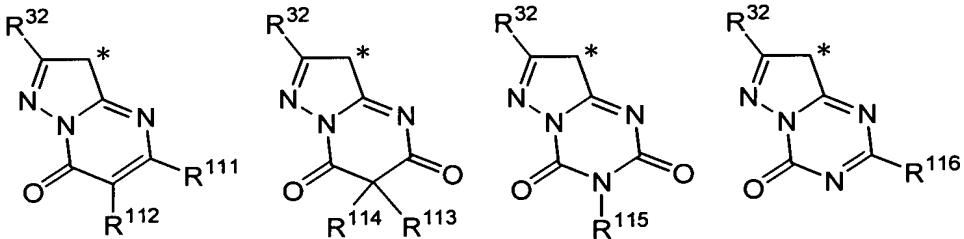
formula (Cp-8) in which  $R^{27}$  and  $R^{28}$  are each a cyano, carbamoyl or alkoxycarbonyl group,  $R^{29}$  is a halogen atom or an acylamino, alkylsulfonylamino, arylsulfonylamino, alkoxycarbonyl, carbamoyl, alkylsulfonyl or arylsulfonyl group, and  $s$  is an integer of from 0 to 2,

formula (Cp-9) in which  $R^{30}$  and  $R^{31}$  are each a hydrogen atom or an alkyl, aryl, heterocyclic, alkoxycarbonyl, carbamoyl, alkylsulfonyl, arylsulfonyl or cyano group and  $Z^+$  is a group capable of forming the following ring systems  $Z^+$  represents an atomic group necessary for the formation of a 6-membered ring together with N-C=N, resulting in a ring system selected from the group consisting of:



in which,  $R^{111}$  represents a hydrogen atom or an alkoxy, amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, aryloxycarbonylamino, sulfamoylamino, alkylsulfonylamino, arylsulfonylamino, alkylthio, arylthio or heterocyclic thio group,  $R^{112}$  represents a hydrogen or halogen atom, or an alkyl, acyl, carbamoyl or alkoxycarbonyl group,  $R^{113}$  and  $R^{114}$  each independently represents a hydrogen atom or an alkyl group,  $-R^{115}$  represents a hydrogen atom or an alkyl group, and  $R^{116}$  represents a hydrogen atom or an alkyl, aryl, alkoxy, aryloxy, amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, alkylsulfonylamino, arylsulfonylamino, alkylthio, or arylthio group,

formula (Cp-10) in which  $R^{32}$  is a hydrogen atom or an alkyl, aryl, heterocyclic, alkoxycarbonyl, carbamoyl, alkylsulfonyl, arylsulfonyl or cyano group, and  $Z^2$  is a group capable of forming the following ring systems:



in which,  $R^{111}$  to  $R^{116}$  have the same meanings as described above, represents a hydrogen atom or an alkoxy, amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, aryloxycarbonylamino, sulfamoylamino, alkylsulfonylamino, arylsulfonylamino, alkylthio, arylthio or heterocyclic thio group,  $R^{112}$  represents a hydrogen or halogen atom, or an alkyl, acyl, carbamoyl or alkoxycarbonyl group,  $R^{113}$  and  $R^{114}$  each independently represents a hydrogen atom or an alkyl group,  $R^{115}$  represents a hydrogen atom or an alkyl group, and  $R^{116}$  represents a hydrogen atom or an alkyl, aryl, alkoxy, aryloxy, amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, alkylsulfonylamino, arylsulfonylamino, alkylthio, or arylthio group,

amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, alkylsulfonylamino, arylsulfonylamino, alkylthio, or arylthio group,

formula (Cp-11) in which  $Z^3$  is  $-C(R^{36})=$ ,  $R^{36}$  representing a hydrogen atom or an acylamino group,  $R^{33}$  and  $R^{34}$  are each a hydrogen atom, a halogen atom, an alkyl group or acylamino group, and  $R^{35}$  is a hydrogen atom or an alkyl group; or in which  $Z^3$  is  $-C(R^{36})=$ ,  $R^{34}$  and  $R^{36}$  are coupled together to form a benzene ring which may be substituted with a halogen atom or an amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, alkylsulfonylamino or arylsulfonylamino group,  $R^{33}$  represents an acylamino, alkylsulfonylamino, arylsulfonylamino, carbamoyl or sulfamoyl group, and  $R^{35}$  represents a hydrogen atom, and

formula (Cp-12) in which  $R^{37}$  and  $R^{38}$  are a cyano or alkoxycarbonyl group,  $R^{39}$  is a halogen atom or an acylamino, alkylsulfonylamino, arylsulfonylamino, alkoxycarbonyl, carbamoyl, alkylsulfonyl or arylsulfonyl group,  $u$  is an integer of from 0 to 2, and  $Z^4$  is  $-SO_2^-$ .

Claim 6 (Currently Amended): A hair dye composition of Claim 1, wherein A of the dissociative direct dye (1) is a group represented by formula selected from the group consisting of (Cp-1), (Cp-2), (Cp-3), (Cp-4), (Cp-7), (Cp-9)-or, and (Cp-11).

Claim 7 (New): A hair dye composition of Claim 1, wherein A of the dissociative direct dye (1) is a group represented by formula (Cp-1),  $R^{11}$  represents a cyano, acyl, aryl or heterocyclic group, or  $-C(R^{101})=C(R^{102})-R^{103}$ , in which  $R^{101}$ ,  $R^{102}$  and  $R^{103}$  each independently represents a hydrogen atom or a substituent with the proviso that at least one of  $R^{102}$  and  $R^{103}$  is an electron attractive group having a Hammett  $\sigma_p$  value of 0.1 or greater,

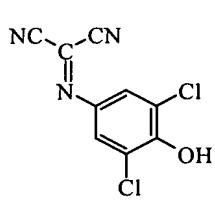
Claim 8 (New): A hair dye composition of Claim 1, wherein A of the dissociative direct dye (1) is a group represented by formula (Cp-2), R<sup>12</sup> represents a cyano, alkoxy carbonyl, carbamoyl, aryl or heterocyclic group, and R<sup>13</sup> and R<sup>14</sup> each independently represents a hydrogen atom or an alkyl, aryl or heterocyclic group,

Claim 9 (New): A hair dye composition of Claim 1, wherein A of the dissociative direct dye (1) is a group represented by formula (Cp-3), R<sup>15</sup> represents a hydrogen atom or an alkyl, aryl, heterocyclic, amino, alkylamino, arylamino, heterocyclic amino, alkoxy, acylamino, alkoxy carbonyl amino, ureido, alkoxy carbonyl, carbamoyl or cyano group, and R<sup>16</sup> represents a hydrogen atom or an alkyl, aryl or heterocyclic group,

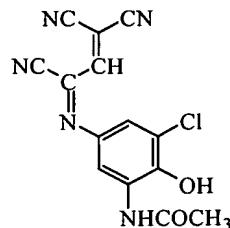
Claim 10 (New): A hair dye composition of Claim 1, wherein A of the dissociative direct dye (1) is a group represented by formula (Cp-11), R<sup>33</sup>, R<sup>34</sup> and R<sup>35</sup> each independently represents a hydrogen atom or a substituent, Z<sup>3</sup> represents a nitrogen atom or -C(R<sup>36</sup>)=, in which R<sup>36</sup> represents a hydrogen atom or a substituent, with the proviso that when Z<sup>3</sup> represents -C(R<sup>36</sup>)=, R<sup>34</sup> and R<sup>36</sup> may be coupled to form a 5-membered or 6-membered ring.

Claim 11 (New): A hair dye composition of Claim 1, wherein said direct dye represented by formula (1) is selected from the group consisting of:

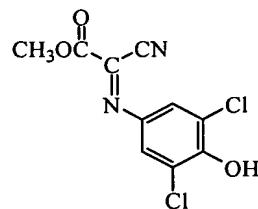
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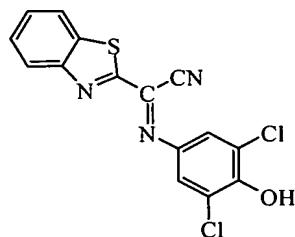
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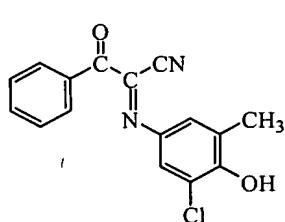
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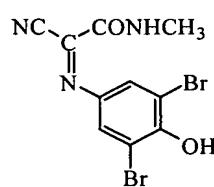
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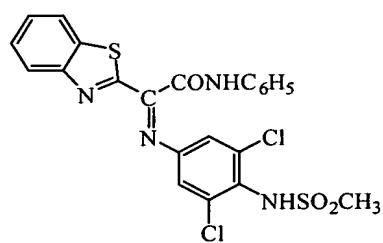
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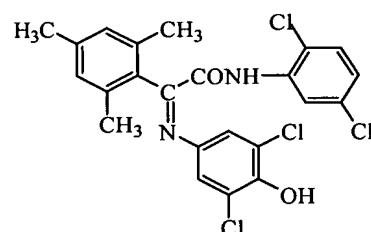
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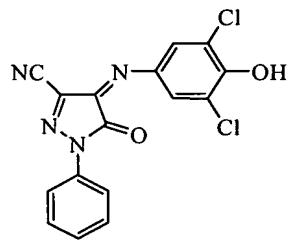
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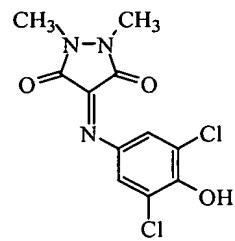
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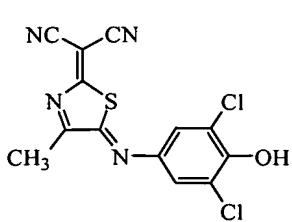
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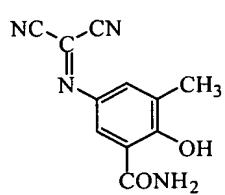
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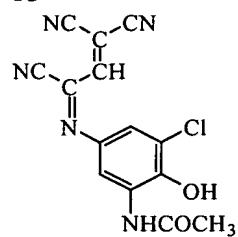
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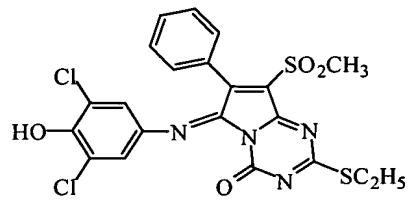
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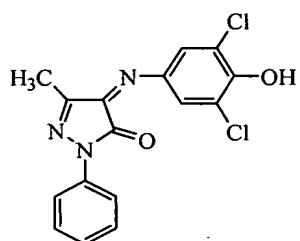
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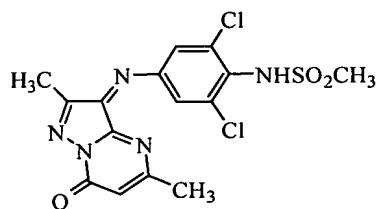
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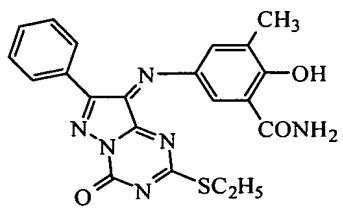
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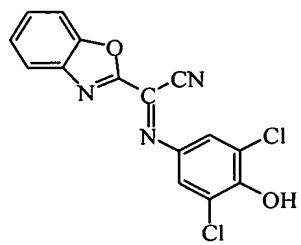
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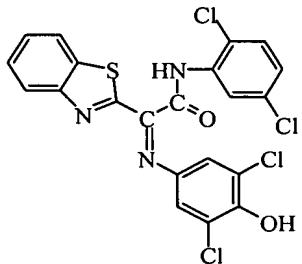
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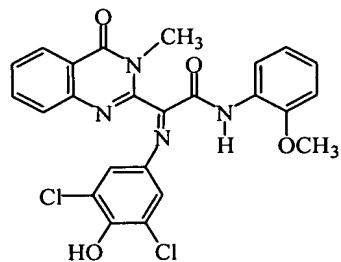
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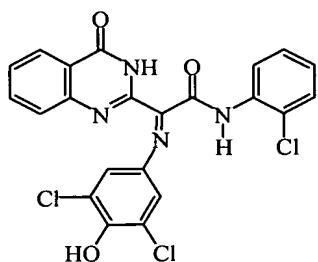
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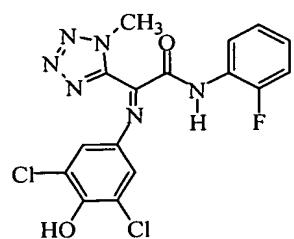
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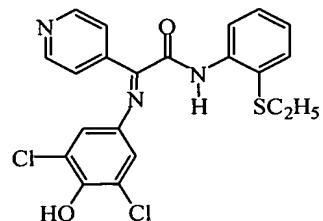
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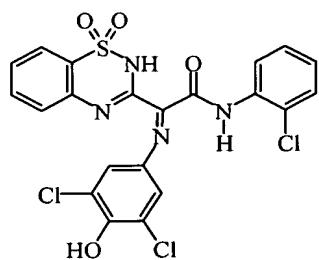
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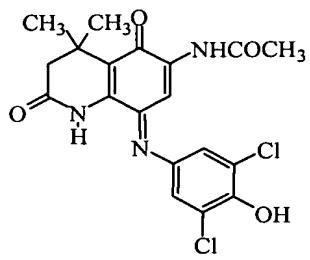
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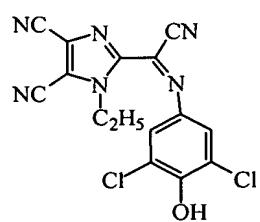
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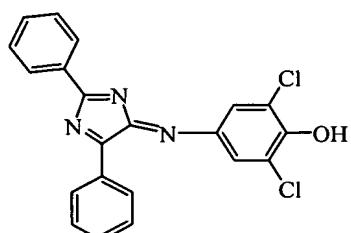
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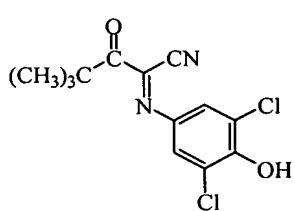
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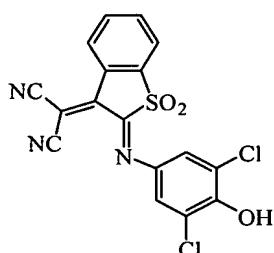
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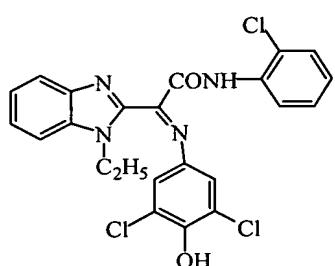
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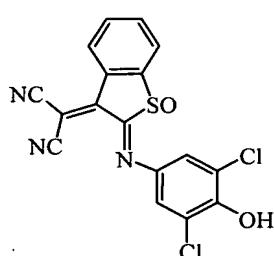
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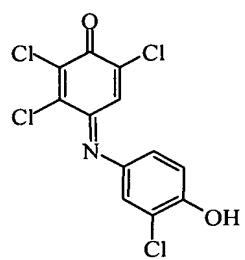
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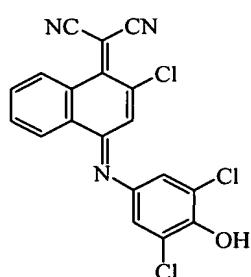
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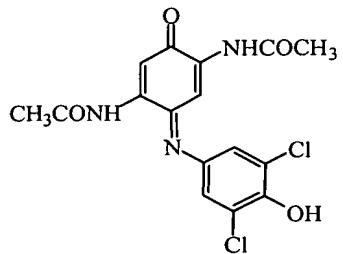
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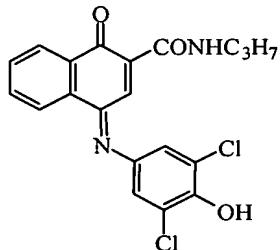
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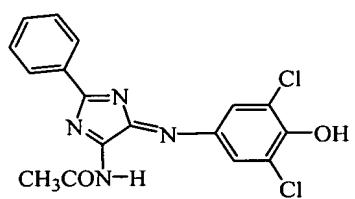
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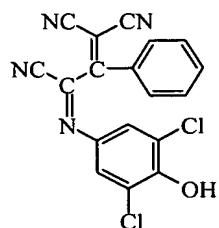
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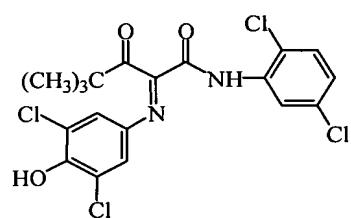
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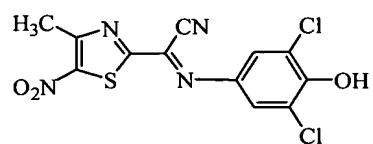
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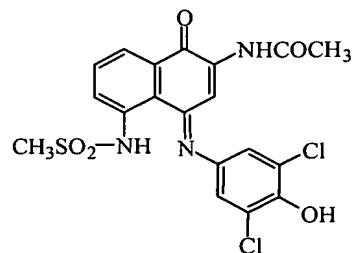
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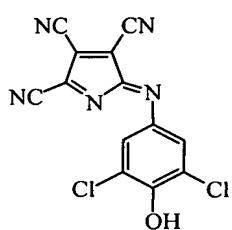
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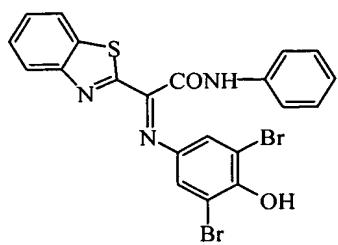
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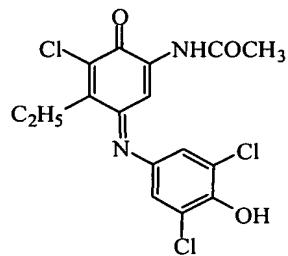
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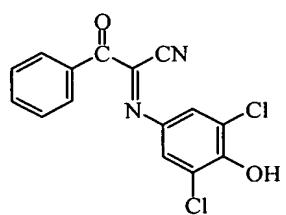
D-45



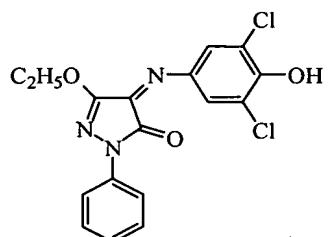
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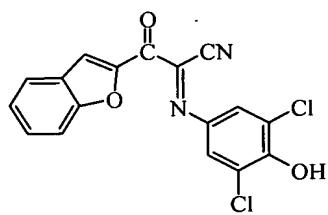
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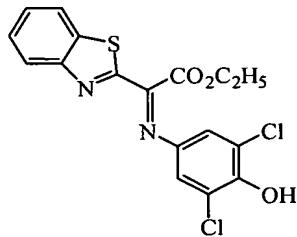
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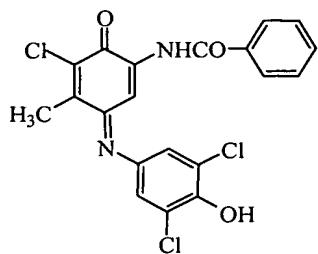
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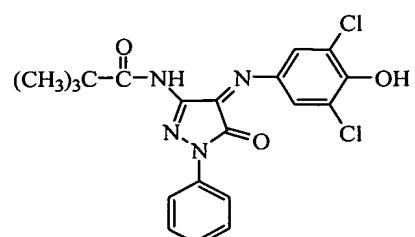
D-49



D-50



D-51



and

Claim 12 (New): A hair dye composition of Claim 1, further comprising at least one direct dye or oxidation dye.

Claim 13 (New): A hair dye composition of Claim 12, wherein the total amount of said dissociative direct dye and said at least one direct dye ranges from 0.001 to 20 wt.% based on the whole composition.

Claim 14 (New): A hair dye composition of Claim 1, wherein the pKa of said dissociative direct dye ranges from 1.5 to 9.

Claim 15 (New): A hair dye composition of Claim 1, wherein the amount of said dissociative direct dye ranges from 0.001 to 20 wt.% based on the whole composition.

Claim 16 (New): A hair dye composition of Claim 1, further comprising at least one additional component selected from the group consisting of an alkali agent, an oxidizing agent, a developer, a coupler, an oxidation dye, an autooxidation dye, a direct dye, a polyol, a polyol alkyl ether, a cationic polymer, an amphoteric polymer, a silicone, a hydrocarbon, an animal fat or oil, a vegetable fat or oil, a higher fatty acid, an organic solvent, a penetration promoter, a cationic surfactant, a natural polymer, a synthetic polymer, a higher alcohol, an ether, an amphoteric surfactant, a nonionic surfactant, an anionic surfactant, a protein derivative, an amino acid, an antiseptic, a chelating agent, a stabilizer, an antioxidant, a plant extract, a crude drug extract, a vitamin, a colorant, a perfume, and an ultraviolet absorber.

Claim 17 (New): A hair dye composition of Claim 1, wherein said hair dye composition is in a form selected from the group consisting of a powder, a transparent liquid, an emulsion, a cream, a gel, a paste, an aerosol, and an aerosol foam.

Claim 18 (New): A method of dying hair, comprising  
applying the hair dye composition of Claim 1 to the hair of a subject;  
reacting said hair dye composition with said hair of said subject; and  
removing said hair dye composition from said hair of said subject.

SUPPORT FOR THE AMENDMENTS

Claims 1, 5, and 6 have been amended.

Claims 7-18 have been added.

The amendment of Claims 1, 5, and 6 are supported by the corresponding originally presented claims. Additional support for the amendment of Claims 1, 5, and 6 can be found on page 18, line 6 to page 19, line 9 of the specification as originally filed. New Claims 7-10 find support in original Claims 1 and 6, as well as the specification at page 20, lines 18-22. New Claim 11 is supported by pages 21-26 of the specification as originally filed. New Claim 12 is supported by the specification as originally filed, for example at page 28, line 18 to page 29, line 9. New Claims 13 and 15 are supported by the specification as originally filed, for example at page 29, lines 10-21. New Claim 14 is supported by the specification as originally filed, for example at page 28, lines 5-9. New Claim 16 is supported by the specification as originally filed, for example at page 30, line 6 to page 34, line 15. New Claim 17 is supported by the specification as originally filed, for example at page 35, lines 20-23. Support for new Claim 18 can be found throughout the specification as originally filed, for example in the Examples.

No new matter has been added by the present amendment.